# AEDT 2b Knowledge Base

This document is the [active] collection of AEDT 2b known issues and workarounds for shared user support to the AEDT 2b product line. For additional information and references, see the AEDT Support website.

- https://aedt.faa.gov
- E-mail: <u>aedt-support@dot.gov</u>

#### **Frequently Asked Questions**

#### Installation

#### 1. Does AEDT 2b require administrative rights in order to be used?

Yes, AEDT 2b requires administrative privileges for both installation and execution of the software. There is currently no workaround for this as AEDT requires creating and registering Component Object Model (COM) components into the Windows Registry, which Microsoft now requires administrative privileges to perform.

2. How can I upgrade to the AEDT 2b Service Pack 3 (SP3) release from the Feature Pack 1 release, the Service Pack 2 release, or from the May 2015 release?

Instructions on how to install AEDT 2b SP3 or update to SP3 from an existing version of AEDT 2b can be found in Section 5.2 of the Installation Guide.

- Existing user-created studies need to be upgraded to the current version in order to use them in AEDT 2b SP3.
- It is strongly recommended to select the "Backup study and upgrade" option to preserve a copy of the existing study database before upgrading.
- After upgrading a user-defined study, reset and re-run the existing metric results in the study.

#### 3. Is AEDT 2b compatible with Windows 8/8.1 or Server 2012 Operating Systems?

We have successfully run AEDT 2b on Windows 8, 8.1, and Server 2012. However, more testing is needed before we can officially support those operating systems. At this time only Windows 7 is currently the only supported operating system for AEDT 2b.

#### 4. Is AEDT 2b compatible with Microsoft SQL Server 2012 and later?

We have successfully run AEDT 2b using SQL Server 2012 and 2014. However, more testing is needed before we can officially support those SQL versions. At this time only SQL Server 2008 R2 and 2008 R2 Express is supported for AEDT 2b. The free Express version of SQL Server 2008 R2 is available for download from the AEDT Support website with your AEDT purchase. The full, OEM versions of Microsoft SQL Server 2008 R2 are no longer available from retailers. However, users with a Microsoft Open License or Volume license can purchase SQL Server 2014 and then downgrade to SQL Server 2008 R2.

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#### 5. Is AEDT 2b compatible with ArcView 10.3 (ArcGIS for Desktop Basic)?

Yes, they can reside on the same machine. AEDT 2b uses ArcGIS Runtime for WPF (version 10.2.5) which runs standalone and doesn't interfere with any other version of ArcGIS.

#### 6. Can AEDT 2b run in a virtual machine (VM)?

Yes, AEDT 2b can run in a VM that is using Windows 7 and SQL Server 2008 R2. The VM can run on any version of Windows on the physical machine as long as the VM software can support Windows 7 and SQL Server 2008 R2.

#### 7. Can AEDT 2a and AEDT 2b be installed on the same machine?

Side-by-side installation of AEDT 2a and AEDT 2b is not advised but with careful system administration, can be accomplished. In a side-by-side installation, two separate SQL Server instances must be provided to separate the supporting system database. Uninstalling either version from the host platform does have risk of removing existing files/data.

#### Database

#### 8. Can an AEDT 2a study database be upgraded to AEDT 2b?

Yes, conversion of AEDT 2a studies to AEDT 2b is supported through the stand-alone AEDT 2a to 2b converter. Please refer to the "Upgrading AEDT 2a Study Database to AEDT 2b" tool on the AEDT Support website, <u>Downloads page</u>.

#### 9. What are the latest AEDT system database versions for AEDT 2b?

- AIRPORT v 2.16
- FLEET v 3.20.2
- STUDY v 1.45.0

#### 10. How can I check the AEDT database versions?

- 1) Open SQL Server Management Studio from the Start menu, All Programs, Microsoft SQL Server 2008 R2, SQL Server Management Studio.
- 2) In the Connect to Server dialog box, enter or select the appropriate SQL Server instance name, then click the Connect button.
- 3) From the File menu, select Open, File...
- 4) Navigate to C:\Program Files\FAA\AEDT\Script Files\InstallCheckDBversions.sql, and select Open.
- 5) Click the Execute button located on the toolbar.
- 6) Verify the database versions displayed in the Results tab with the versions listed above.

#### 11. What is the cause of the following error in aedt.log when I run a metric result?

"Message = Could not allocate space for object 'dbo.EVENT\_RESULTS'.'PK\_EVENT\_RESULTS' in database '[STUDY\_NAME]' because the 'PRIMARY' filegroup is full. Create disk space by deleting unneeded files, dropping objects in the filegroup, adding additional files to the filegroup, or setting autogrowth on for existing files in the filegroup."

The Microsoft SQL Server 2008 R2 Express Edition (free version) has a database size limit of 10 GB. Please see the FAQ #4 above for further information on Microsoft SQL Server versions.

#### 12. Will AEDT have flight profiles already pre-loaded?

Standard SAE-AIR-1845 flight profiles are already pre-loaded.

#### 13. Will I be able to update the Airport database with the 56 day **FADDS** data?

Each release of AEDT reflects the latest FADDS data as of the AEDT release date; the Airport database is not updated and released separately from AEDT.

#### 14. Are SIDs and STARs already loaded?

No, SIDs and STARs are not loaded into the AEDT database.

#### **Receptor Set**

#### 15. Do I need to enter the receptor elevation?

The user should set the elevation of the receptor. This is typically set to the elevation of the airport, but it could be set at another, user-defined, elevation.

Studies for geographies with significant topography should use terrain data. The receptor elevation is then set to the terrain elevation at the receptor's lat/lon (or x/y). In regions where topography is relatively flat, use of terrain data is not required for environmental studies of FAA actions.

If there is uncertainty in the use of terrain and its potential influence on noise exposure in a specific study, the analyst should coordinate with the appropriate reviewing authority. For more information concerning NEPA studies, please refer to the section on "Use of terrain information" in the *Guidance* on Using the Aviation Environmental Design Tool (AEDT) 2b to Conduct Environmental Modeling for FAA Actions Subject to NEPA document.

Please note that the "Height above terrain – offset from elevation (ft)" field is not used for noise or emissions dispersion processing.

#### 16. What types of terrain data are supported in AEDT?

AEDT supports Grid Float, 3CD, and DEM terrain data types. AEDT 2b contains a bug where 3CD terrain files are not automatically converted to grid float format. A workaround is to

- Use GridFloat files instead; or
- Use 3CD files, but directly update the [RUN\_OPTIONS] table in the study database. Change the [TERRAIN\_FILE\_TYPE] column value to 0 (zero), then run metric result.

#### 17. What is a dynamic grid? How is it different from recursive grid in INM?

The dynamic grid in AEDT is used to accomplish the same result as the INM recursive grid – reduced processing time for contour data. The major difference between the recursive grid and the dynamic grid is:

- Starting grid of recursive grid is defined for the final extents of the grid and works inward.
- Starting grid of dynamic grid starts small and expands outward until the desired contour level is closed.

Dynamic grid is only supported for the DNL noise metric. To view noise results for a metric result run with a dynamic grid, generate the receptor set layer and view its attributes. Flight performance

report, emissions report, and noise exposure report results are not saved for dynamic grid. Dynamic grid results are also saved as .CSV files to the study output directory (C:\AEDT\DATA\[User name]\[Study name]@[SQL Server Instance Name]\Output\_Files).

Here is a set of general guidelines for creating an initial grid for a dynamic grid. Please note that the dynamic grid settings may need to change depending on study.

- Use a 2x2 receptor grid (i.e. X count = Y count = 2)
- Set the resolution of the initial grid to be a high resolution (e.g. X spacing = Y spacing = 0.1 nmi)
- Establish the receptor grid to be near a runway end
- Use the default dynamic grid preference settings

A large refine level limit and a small tolerance value will result in more grid points and higher-fidelity contours (but a longer run time).

# **18.** What is the cause of the following error in aedt.log when I run a DNL metric result with dynamic grid?

"The INSERT statement conflicted with the FOREIGN KEY constraint "FK\_EVENT\_RESULTS\_ANNUALIZATION". The conflict occurred in database "[STUDY\_NAME]", table "dbo.ANNUALIZATION", column 'ANNUALIZATION\_ID'."

This is caused by a bug in dynamic grid processing. This bug can be triggered when an ASIF file does not have annualization defined for scenario. To work around this issue, either 1) define annualization for each scenario in the ASIF file; or 2) after importing the ASIF file (without annualization) into AEDT, go to Operations tab, Annualization, then click Import All Scenarios button. This will create annualizations based on the scenarios.

#### 19. Is there a way to define nested receptor grid sets with airport as the center?

Using offsets for receptor sets are not supported in AEDT 2b.

#### 20. Does AEDT provide an option to define a polar grid?

AEDT 2b does not support the definition and use of polar grids.

#### **Emissions**

#### 21. What is the mixing height used in AEDT?

Users have the option to change the mixing height for emissions inventory (3000 ft AFE is the default). For emissions dispersion, mixing height is fixed at 3000 ft; and dispersion is not processed above 3000 ft.

The mixing height values in the Airport database came from the EPA (see link below), however this source is considered outdated and therefore values for the mixing height included in the Airport database are not used in calculations.

http://www.epa.gov/ttn/scram/mixingheightdata.htm

#### 22. Can emissions be reported below mixing height by AEDT?

Yes, below mixing height is one of AEDT's standard reporting regimes. AEDT supports flight performance modeling and analysis for runway-to-runway flight tracks and operations.

23. Is AEDT capable of calculating aircraft emissions above mixing height or 3,000 feet AGL?

Yes, fuel burn and emissions are computed for all phases of flight that are modeled in AEDT.

#### 24. Can I run a noise study without running emissions, or vice versa?

Yes, noise and emissions outputs can be run together in one metric result or run independently from each other in separate metric results.

#### 25. Is there a way to get detailed segment-level trajectories?

The following options are available:

- The Flight Performance Report Flight Segment tab displays the segment-level flight performance data.
- The Emissions Report Operations Detail displays the segment-level emissions data.
- Store the segment-level emissions results to the [RSLT\_EMISSIONS\_SEGMENT] table in the study database. To populate the [RSLT\_EMISSIONS\_SEGMENT] table:
  - 1) Close AEDT.
  - 2) Open the C:\Program Files\FAA\AEDT\FAA.AEE.AEDT.GUI.View.Ribbon.exe.config file, change the following key to true, and save the file. <add key="EmissionSegmentResultToTable" value="true" />
  - 3) Define a metric result, and select "Segment" as the Emissions storage option.
  - 4) Run the metric result. Please note that when this key is set to true, the "Operations Detail" Emissions Report is no longer viewable in the GUI. Saving emissions results to this table only works for the fixed-wing and not helicopters.

#### **Emissions Dispersion**

#### 26. What version of AERMOD and AERMET does AEDT use?

Version 14134 of AERMORD and AEMET is used by AEDT 2b. EDMS 5.1.4 uses version 12345.

#### 27. Does AEDT support using terrain for emissions dispersion?

For emissions dispersion, AEDT assumes flat terrain and does not support importing terrain data. Terrain is used in noise calculations in AEDT 2b. Note that the terrain settings in the Definitions tab are applied to noise calculations only.

#### 28. How does AEDT work with MOVES results?

The emissions inventory and emissions dispersion results from the EPA MOVES (Motor Vehicle Emission Simulator) can be integrated into AEDT. Please refer to the AEDT 2b User Guide and the "Using MOVES with AEDT 2b" document for more information.

# **29.** What is the cause of the following error in aedt.log when I run an emissions dispersion metric result?

"Message = both zero and twentyfour hour exists in C:\AEDT\DATA\[User name]\[Study name]@[SQL Server Instance Name]\Output\_Files; StackTrace = at FAA.AEE.AEDT.Weather.EDMSWeatherModule.FindShiftHour() at FAA.AEE.AEDT.Weather.EDMSWeatherModule.InitCache()"

This error message indicates that the weather data files contains missing data. The weather data for all 24 hours in a day must be specified.

#### **ASIF (AEDT Standard Input File)**

#### 30. Is there a tool for producing ASIF files?

Legacy INM/EDMS studies can be imported into AEDT from the AEDT user interface. Also, external converter tools for converting INM/EDMS studies to ASIF are provided with AEDT installation. Please refer to the Appendix C – Converter Tools in the AEDT 2b User Guide for more information. Manual editing of the ASIF file may be necessary in order to successfully import the file.

#### 31. Can I import a Noise Integrated Routing System (NIRS) study into AEDT 2b?

The NIRS to ASIF (NIRS2ASIF) Converter tool can convert a NIRS study into ASIF format, which can then be imported into AEDT 2b. The NIRS2ASIF Converter tool is available on the AEDT Support website, <u>Downloads page</u>.

#### 32. Can an AEDT study be exported to ASIF format?

Individual aircraft examples can be exported from the Equipment tab but complete study contents cannot be exported as one unit.

#### 33. Is there a sample ASIF file?

A set of sample ASIF XML files are located in the installation directory under C:Program FilesFAAAEDTExamples

#### 34. How can I validate an ASIF XML file?

ASIF schema is defined by the series of XML schema definition files (.XSDs) located under C:\Program Files\FAA\AEDT\Examples. Use the AEDT Study tab > Import > ASIF or the Study tab > Partial Import functions to validate a given ASIF data set. Validation errors will be reported in the AEDT log file.

#### 35. Does AEDT use the <speed> value under the <trackNode> element in ASIF?

AEDT will ignore speed input except when associated with sensor path points outside the terminal area (i.e. above 10,000 feet AFE for the departure portion of the sensor path; above 6,000 feet AFE for the arrival portion) or fixed point profiles.

#### **Data Import / Export**

# 36. When using the "Save as Shapefile" feature, are there any restrictions in naming the map layer?

When exporting to shapefile, remove any characters that are not alphanumeric character or an underscore. The following Esri FAQ page summarizes the problem: http://support.esri.com/cn/knowledgebase/techarticles/detail/23087

**37.** Do GIS layers need to be defined in decimal degrees or UTM before importing into AEDT or does AEDT project an imported layer in other coordinates?

Either projection (UTM or lat/lon) can be used, but NAD83 or WGS84 datum is required.

#### 38. Are there any capabilities to import from or export to CAD files?

No. However external converters may be available to do the conversions as needed. Note that currently, ESRI does have an "ArcGIS for AutoCAD" product, and other third party conversion tools may also be available as well.

#### Weather

# **39.** For average annual weather, does AEDT take the weather data of the closest airport and extrapolate it to the altitude of the airplane?

Yes, AEDT uses the weather data of the closest airport and the International Standard Atmosphere (ISA) model to estimate weather at different altitudes.

#### 40. Is a study boundary required when using high fidelity weather data?

Yes, a rectangular study boundary is required in order to use high fidelity weather. A study boundary can be created by clicking the *Edit* button in the *Metric Results* tab, *Study Boundary* ribbon group.

41. Why does my flight fail using high fidelity weather when it was flown successfully using average annual weather?

When high fidelity weather is used, some operations may fail because they are not able to fly the specified path under certain atmosphere conditions.

#### 42. Is it possible to create user-defined weather in AEDT?

Yes, see the *Definitions* tab > *Weather*.

#### 43. Can AEDT accept GRIB1/2 weather data?

While AEDT supports certain specific data products that are in the generic GRIB format, those data products (RUC and RAP) that are available are in the U.S./North American geographical space only.

#### 44. Does AEDT support RAP data?

Rapid Refresh (RAP) data is the next-generation version of the RUC and officially replaced RUC in May 2012. AEDT 2b supports RAP (13 km and 20 km horizontal resolution). Note that the grid and covered region may be different between RUC and RAP. The following document describes the differences between RUC and RAP in detail. <u>http://ruc.noaa.gov/pdf/RAPbrief.NCEP-Dir-20Mar2012.pdf</u>

#### **Sensor Path**

45. Does AEDT do any internal smoothing of radar track inputs to eliminate altitude aberrations?

AEDT does smooth and filter altitude and speed values given in input trajectory data specifically for sensor path operations. Geographic location information from the input trajectory data is not changed. The smoothing and filtering process is as follows:

- 1) Discard points that exceed the BADA global longitudinal acceleration limit.
- 2) Discard points that exceed the BADA global normal acceleration limit.
- 3) Perform exponential smoothing of the remaining altitude and speed values in the forward and reverse directions.
- 4) Points are reduced to locations where acceleration or climb angle is within the range of 130% to 70% of the average.

#### 46. Are there any requirements for sensor path points?

- Sensor path operations in AEDT require at least two points in the terminal area (below 10,000 ft AFE) at both ends of the flight.
- Consecutive sensor path points at the same geographic location can lead to the NaN (not a number) exception.

#### 47. Which fields are required or optional for the <sensorPath> element in ASIF?

- The <speed> field is specified as an optional element in the ASIF schema, but it is necessary in order to import the ASIF file.
  - The <speed> field in each <sensorNode> is used in calculation, but only above 10,000 ft AFE on the departure end and 6,000 ft AFE on the arrival end i.e. only in the BADA regime.
  - Below that altitude, the calculations are handled via the same SAE AIR 1845 mechanism used for altitude controls. So input altitudes are followed, but speeds are defined by the corresponding ANP procedure chosen for the particular flight operation, not the speeds given for each sensorNode.
- The <messageTime> field is not used in the calculation, and it does not need to be adjusted.
- The <thrust> values are ignored. AEDT calculates its own thrust values which represent the thrust required to fly the smoothed and filtered input data as determined by the SAE AIR 1845 model at altitudes within the terminal area and BADA at altitudes outside the terminal area.

#### **Fixed Point Profiles (User-defined Profiles)**

#### 48. Are there any requirements for using fixed point profiles?

In order to get correct noise output from AEDT, the units for user-defined fixed point profile thrust values must match those for the corresponding NPD data for the aircraft type being modeled. For large commercial aircraft, this is generally net corrected thrust per engine in pounds.

#### 49. Can I model runway-to-runway operations using fixed point profiles?

No, this is not supported in AEDT. Only single-airport operations (i.e. just an arrival or just a departure) are supported using fixed point profiles.

#### 50. Are flight operations using fixed point profiles affected by weather?

No, the fixed point profiles are always completely insensitive to atmospheric conditions/weather. The flight operations using fixed point profiles will follow your input location, speed, altitude, and thrust data exactly to calculate flight performance.

#### **Aircraft Substitution**

#### 51. What is the helicopter substitution list for AEDT?

The following table contains the helicopter substitution list for AEDT. This list is based on the latest substitution list in INM Version 7.0d. This information is provided to assist users in selecting appropriate helicopter substitutions for those helicopters that are not in the AEDT database.

		Substitution
Helicopter Name	Description	Helicopter
SA316	Aerospatiale Alouette III	SA350D
SA313B	Aerospatiale SA 313B Alouette II	B206L
SA315B	Aerospatiale SA-315B	SA350D
AS-350	Aerospatiale SA-350 Astar (AS-350)	SA350D
SA360C	Aerospatiale SA-360C	SA365N
SA365C3	Aerospatiale SA-365C3	SA365N
A109N	Agusta A-109N	B429
A109E	Agusta A-109 E	A109
A109C	Agusta A-109C	A109
A109K2	Agusta A109K2	A109
A109LUH	Agusta A-109LUH	A109
A119 MKII	Agusta A109-MKII	A109
A109S	Agusta A109S	A109
A109SP	Agusta A109SP	A109
A119	Agusta A119	A109
AB139	Augsta/Bell 139	SA330J
B206L-1	Bell 206L-1 Long Ranger	B206L
B206L-3	Bell 206L-3 Long Ranger	B206L
B206L-4	Bell 206L-4 Long Ranger	B206L
B206L-4 STC	BELL 206L-4 STC00036SE	B206L
B206L-4T	Bell 206L-4T Long Ranger	B206L
Bell 214B-1	Bell 214B-1	B212
B222B	Bell 222B	B222
B222U	Bell 222U Fxd Skd Gear	B222
B230	Bell 230 Fxd Skd Gear	B222
B230	Bell 230 RTR WHL GR	B222
B407	Bell 407 / Rolls-Royce 250-C47B	B407
B412EP	Bell 412 EP	S76
B412	Bell 412 HP	S76
B412SP	Bell 412 SP	S76
B427	Bell 427 (Light)	B427
B47G2	Bell 47 G2	R44
B47G4	Bell 47 G4	R44
Bell OH-58A Kiowa	Bell OH-58A Kiowa	B206B3
AH-64 Apache	Boeing AH-64 Apache	S70
MD600N	Boeing MD 600N	MD600N
MD900	Boeing MD 900	MD600N
MD520N	Boeing MD520N	MD600N
BO105LSA-1	Boelkow BO-105 LS A-1	BO105

		Substitution
Helicopter Name	Description	Helicopter
EH101/300/500	EH Industries EH101/300/500	S65
EH110/510	EH Industries EH110/510	S65
Enstrom 280 FX	Enstrom 280 FX	R44
E 280C	Enstrom 280C	R44
E 280FX/F-28F	Enstrom 280FX/F-28F	R44
E 480	Enstrom 480	H500D
E 480B	Enstrom 480B	H500D
F28C	Enstrom F28C	SC300C
F28F	Enstrom F28F	SC300C
E TH28/480	Enstrom TH28/480	H500D
BK 117A1	Eurocopter 117A1	B429
BK 117A3	Eurocopter 117A3	B429
BK 117A4	Eurocopter 117A4	B429
BK 117B1	Eurocopter 11781	B429
BK 117B2	Eurocopter 117B2	B429
BK 117B2C	Eurocopter 117B2C	B429
BK 117C1	Eurocopter 117C1	B429
BK 117C1+	Eurocopter 117C1+	B429
BK 117C1C	Eurocopter 117C1C	B429
BK 117C2	Eurocopter 117C2	B429
AS 3321 2	Eurocopter AS 332L2	<u> </u>
AS 350 B1	Eurocopter AS 350 B1	SA355E
AS 350 B2	Eurocopter AS 350 B2	SA355E
AS 350 B2	Eurocoptor AS 350 B2	SA3555
AS 350 BS	Eurocopter AS 350 BS	SA355F
AS 350 BA	Eurocopter AS 350 BA	SA300F
AS 350 BB	Eurocopter AS 350 BB	SA355F
AS 355F	Eurocopter AS 355F	SA355E
AS 355F1	Eurocopter AS 355E1	SA355E
AS 355E2	Eurocopter AS 355E2	SA355E
AS 355EP2	Eurocopter AS 355EP2	SA355E
	Eurocopter AS 355FR2	SA355F
	Eurocopter AS 355N	SA300F
	Eurocopter AS 355NP	
AS 303 NZ	Eurocopter AS 365N2	SASOSIN
AS 303N3	Eurocopter RK 117P2	B420
EC 120	Eurocopter BK 17/BZ	D429
EC 120	Eurocopter EC 120	EC120
	Eurocoptor EC 120T2	EC130
EC135	Eurocopter EC 125	EC130
	Eurocoptor EC 135 (CDS)	EC130
EC135 (CD3)	Eurocoptor EC 135 (CDS)	EC130
	Eurocoptor EC 135 (CDS)	EC130
EC135T1 (CDS/CFDS)	$Eurocoptor EC_{135} (CDS/CPDS)$	EC130
EC135D1 (CD3/CFD3)	Eurocoptor EC-135 (CD5/CFD5) Eurocoptor EC-125P1	EC130
EC125D2	Eurocoptor EC 125D2	EC130
		EC130
EC130F2 (CFD3)	Eurocoptor EC 125D2 (CPD3)	EC130
EC100FZ+ EC125T4	Eurocoptor EC 12571	EC130
	Eurocoptor EC 125T2	EC130
EC13312 EC135T2	Eurocoptor EC 125T2	EC130
E013312+		EC130

		Substitution
Helicopter Name	Description	Helicopter
EC155B	Eurocopter EC-155B	SA365N
EC155B1	Eurocopter EC-155B1	SA365N
EC225LP	Eurocopter EC-225LP	S70
EC635T1	Eurocopter EC-635T1 (CPDS)	EC130
EC635T2+	Eurocopter EC635T2+	EC130
EC135T2(CPDS)	Eurocopter EC-T2 (CPDS)	EC130
MD500C	Hughes MD500 C	H500D
	Kaman K-1200 (2 Interneshing Main	
K-1200	Rotors)	B427
KA32A11BC	Kamov KA-32A11BC	S70
Kawasaki BK-117	Kawasaki BK-117	B429
UH72	Lakota - EC145 mili version	B429
MD500N	McDonnell Douglas MD-500N	H500D
SW4	PZL Swidnik SW-4	SA350D
W3A	PZL Swidnik W-3A	SA330J
W3AS	PZL Swidnik W-3AS	SA330J
R22BETA	Robinson R22 Beta	R22
R22MARINER	Robinson R22 Mariner	R22
S269C-1	Schweizer 260C-1 (Upturned Exhaust and Diff.)	SC300C
S269C	Schweizer 269C (Includes Muffler & Resonator)	SC300C
S269C	Schweizer 269C (Includes Muffler)	SC300C
S269C	Schweizer 269C (Upturned Exhaust)	SC300C
S269D(Conf. A)	Schweizer 269D (Config. A)	H500D
S269D(330SP)	Schweizer 269D(330SP)	H500D
S300C	Schweizer 300C (1)/ Upturned Exhaust	SC300C
S300C	Schweizer 300C (2)/ Includes Muffler	SC300C
S300C	Schweizer 300C (3)/ Muffler & Resonator	SC300C
S330	Schweizer 330 / Allison 250-C20 Turboshaft	H500D
S269D/330	Schweizer S269D/330	H500D
S76A+	Sikorski S-76A+	S76
S76B	Sikorski S-76B	S76
S-76C+	Sikorski S-76C+	S76
S64-F	Sikorsky S-64-F	S65
S-76A STC 568NE	Sikorsky S-76A STC 568NE	S76
S-76C	Sikorsky S-76C	S76
S92	Sikorsky S-92	S70

#### **Miscellaneous**

#### 52. Will AEDT model military aircraft?

Yes, any military aircraft for which data are available (INM has historically included NOISEMAP aircraft) can be modeled. AEDT 2b SP3 now supports calculating fuel consumption and emissions for military aircraft (and aircraft with thrust type = "other").

# **53.** What are the default vector tracks available for each airport in the Create Aircraft Operation wizard?

Default arrival and departure vector tracks are automatically created by AEDT for each runway end in the airport.

#### 54. How can I construct a vector track?

Creating a vector track is supported through ASIF import. Only point type tracks can be created in the AEDT 2b user interface.

#### 55. What time standard does AEDT assume for operations?

AEDT assumes that all date time values for operations are in local times, not UTC (Universal Time Coordinated).

#### 56. How do I generate the administrative file (.bak) for my AEDT study?

In order for the AEDT technical support team to better assist you, we will typically need a copy of your study's administrative file so that we can reproduce your issue. An administrative file package is a zip file that contains a backup of the study database (.bak file) and various log files. To generate administrative file, first open your study, go to the *Study* tab > *Study Maintenance* and click the "Generate Administrative File" button.

#### **AEDT 2b Known Issues**

1. Some airframe/engine combinations from EDMS 5.1.4.1 system data are incongruent with AEDT 2b and are reported "bad data integrity" errors during EDMS study import. To correct, import the aircraft as user-defined aircraft. (21179)

2. When an EDMS study containing grid receptor sets is converted to AEDT, the rendering of receptor locations will be slightly mismatched between EDMS and AEDT. This is because in AEDT the origin of the grid receptor is in the bottom left corner, while EDMS uses the offsets based on the center of the grid. A workaround is to:

- 1) Incorporate the grid and the discrete receptors in the EDMS study into an AERMOD.INC file.
- 2) In AEDT 2b, go to Study tab, Preferences, Emissions Dispersion.
- 3) Check the "Use AERMOD receptor grid" option and reference the .INC file from step 1 in the "File with AERMOD receptor grid" option. This makes the application ignore the receptor set assigned to the emissions dispersion metric result, and forces using the specified AERMOD grid receptor. The INC file can contain both grid and discrete receptors.

3. Flight profiles are not editable when creating a user-defined aircraft in Equipment tab. Use ASIF import in order to create a new aircraft with different flight profiles. (21323)

4. Deleting user-defined helicopter is not supported in the Equipment tab. (21169)

5. Flight performance report and emissions report for helitaxi operations do not correctly reflect inbound vs. outbound operation type.

6. Opening multiple emissions reports may show data from a different report. To avoid this issue, open only one emissions report at a time. (21322)

7. In the INM to ASIF Converter tool, the "Enable User Defined Airport" option is not supported. (21333)

8. In the Speciated Organic Gases tab in the Emissions Report, repeatedly converting units may produce inconsistent values in the report. (21329)

9. Unhandled exception is generated when opening a study originally created on a different install location with the default base map. (21103)

10. Generating noise contour for imported metric result is not supported. To examine results, view the receptor set. (21335)

11. A helitaxi track imported via ASIF will be listed in the Airports Details pane, however it will not be displayed on the map as part of the airport layout layer. To view the helitaxi track on map, view tracks in the Metric Results tab. (21029)

12. After a partial ASIF import, the application does not refresh. Restart the application to view the imported data. (21293)

13. If you get a "timeout expired" error when generating an emissions report, a workaround is to:

- 1) In Study tab, Database Preferences, increase the "Datacontext timeout" setting (e.g. 300 seconds).
- 2) Generate the "Operation Summary" emissions report first.
- 3) Generate the "Operation Group Summary" emission report.

14. User settings from prior installations may not be removed exhibiting behavior such as failed contour generation (old filename for contouring gpk). Manually delete the file C:\AEDT\DATA\[User name]\user\_settings.json where [User name] is the Windows account name under which the user is working.

15. Uninstalling AEDT when another application is connected to the AEDT databases leaves any connected databases on the server. As a workaround, delete the databases manually using Microsoft SQL Server Management Studio. (12194)

16. After closing a study in the AEDT application, Microsoft SQL Server still maintains a connection to the database for several minutes. To delete a study database, exit from the AEDT application first; then delete the desired database in the Microsoft SQL Server Management Studio. (18027)

17. An apostrophe in the study name is not supported (e.g. O'Hare). The Open Study dialog will display "Can't connect to the database server because either the server is down or username and password are incorrect" error if a study name contains apostrophe. (21454)

18. Aircraft equipment groups cannot be used to assign tracks to operations. User's only access to Operation Group Percent Distribution processing is through direct SQL injection of AIR\_OPERATION table. (21921)

19. Airports with an expiration date set to a past date may not import via ASIF. A workaround is to change the expiration date in the Airports database.

20. The INM to ASIF Converter will not convert system aircraft with user modified properties (i.e. added a custom profile, but still used the same system aircraft name). A workaround is to rename the aircraft with a unique name so that the Converter recognizes it as a user-defined aircraft.

21. Weather import does not take into account Airport Layout Start date. Manually confirm that the dates for weather data being used are after the start date of the associated airport layout. (8386)

22. Sensor path tracks cannot be rendered in the map display. As a workaround, in the Flight Performance Report view the Flight Segments tab for an operation using the sensor path track. (13236)

23. Flight operations specifying cruise altitude above the highest allowable specified aircraft altitude are processed. Manually confirm cruise altitude on the operation against the BADA cruise altitude limit. (6676)

24. Processing of high fidelity weather data is not thread-safe. To compensate, set the "NumberOfThreads" key to 1 in C:\Program Files\FAA\AEDT\FAA.AEE.AEDT.GUI.View.Ribbon.exe.config file. (21287)

25. If the BADA energy share factor is not present in the FLT\_ANP\_BADA\_ENERGYSHARE table for the aircraft's ANP ID/BADA ID combination, it can cause an infinite loop when processing such aircraft. The BADA energy share factor is used in modeling the transition from the ANP flight regime for the terminal area and the BADA flight regime for the cruise portion of the flight. A workaround is to manually insert a record into this table. (21954)

26. Noise metric results using dynamic grid receptor sets will not be processed when airport codes are user-defined. As a workaround, temporarily reassign the user-define airport code to an ICAO code. (21339)

27. "Unable to upgrade study" error will be displayed during the study upgrade process if a study contains a non-aircraft equipment group. Delete the non-aircraft equipment groups from a study before upgrading it. (22077)

28. AEDT is unable to process 3CD terrain files. A workaround is to use GridFloat files instead. (22045)

29. ASIF import does not populate the taxi in/out time columns in the AIR\_OPERATION table. (21976)

30. The noise grid file exported from AEDT is incorrectly scaled. (21963)

31. An AEDT generated shapefile cannot be imported into Google Earth Pro. (21979)

32. Taxi-gate intersection location calculation is incorrect. (22008)

33. Taxi network runways use the default runway width (20 meters) instead of the defined runway width. (22007)

34. Deleting a taxipath is not supported if a study has been already run. (22041)

35. When exporting some aircraft from the Equipment tab, only the STANDARD profiles are included, not ICAO-A and ICAO-B. (22073)

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36. Noise contours may be displaced on the map (i.e. does not align with the receptor set) if the X and Y spacings are not the same. (22072)

37. User's only access to Operation Group Percent Distribution processing is through direct SQL injection of AIR\_OPPERATIONS.

38. The "Height above terrain – offset from elevation (ft)" field in the Definitions tab, user provided receptor height is not used for noise or emissions dispersion processing. (1346)

39. When applying Delay & Sequencing, air operations based on operational profiles with "Operation Count" values that are small, e.g. less than one operation per scenario duration, are subject to a quantization error in the assignment of the operation time.

40. Military aircraft runup operations are not supported in AEDT 2b. (22175)

41. User-defined helicopters and user-defined military aircraft in an INM study are not converted by the INM to ASIF Converter Tool. (22242)

42. When an INM study containing grid receptor sets is converted to AEDT, receptor locations will be slightly mismatched between INM and AEDT. This is because in INM, the origin of the grid receptor is offset from the projection origin (the airport origin). In AEDT, the projection origin (airport origin) is treated as the grid origin. (511)

43. In order to use different Terrain files in the same study, restart AEDT after changing the Terrain directory. (1388)

44. In order to use different ambient files in the same study, restart AEDT after changing ambient files/directory. (1389)